



**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY**  
REGION 5  
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CHICAGO, IL 60604-3590

JUL 25 2003

REPLY TO THE ATTENTION OF:  
(B-19J)

John Baxter, Division Administrator  
Federal Highway Administration - Indiana Division  
575 N. Pennsylvania St., Room 254  
Indianapolis, Indiana 46204

**RE: EPA Review and Comments on the Draft Environmental Impact Statement (DEIS)  
for US 31 Improvement Project (I-465 to SR 38), Hamilton County, Indiana  
CEQ No. 030275**

Dear Mr. Baxter:

In accordance with our responsibilities under the National Environmental Policy Act (NEPA) and Section 309 of the Clean Air Act, we have reviewed the US 31 Improvement Project (I-465 to SR 38), Hamilton County, Indiana Draft Environmental Impact Statement (DEIS), dated June 2003.

Based on the information provided in the DEIS, the purpose and need for the project is to reduce existing and expected year 2025 traffic congestion and improve safety along the approximately 13 mile segment of US 31 between I-465 and State Road 38. The No-Action Alternative and 12 build alternatives (i.e., Alternatives F1 through F6 and G1 through G6) underwent detailed analysis. The DEIS identifies the F Alternatives (i.e., F1, F2, F3, F4, F5 and F6) as the "preferred alternatives." All F "preferred alternatives" consist of upgrading existing US 31 for 13.1 miles to a 6-lane, full access control freeway with a 55-foot median and 10 new interchanges. The difference between the F alternatives is limited to choosing between two locations for an interchange and the design of an interchange at a third location.

Based on the information provided in the DEIS, EPA concurs that the F alternatives are preferable to the G alternatives. The F alternatives would have fewer impacts to natural resources than the G alternatives, including but not limited to wetlands, forests, streams, 100-year floodplains and agricultural land. Of the "preferred alternatives," Alternatives F4 and F1 have the least amount of direct impacts to wetlands (0.92 acres), 100-year floodplain (35.0 acres), archeological sites (7), and prime farmland soils (95 acres). We note that Alternative F4 has the least amount of direct impact to forest land (31.8 acres).

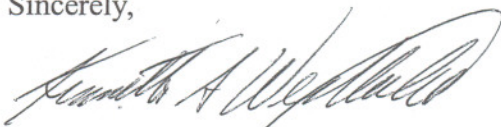
While EPA's comments indicate areas where additional information is needed, the DEIS generally provides an adequate identification of Purpose and Need, identification and analysis of Alternatives, and their potential environmental impacts. Our remaining concerns with this project

regard reducing the potential for impacts to public drinking water supplies in wellhead protection zones (WPZs), and mitigation (i.e., avoidance, minimization and compensation) for impacts to forests, wetlands, streams, and floodplains. Our detailed comments are provided in the enclosure titled *EPA Region 5 Comments on the US 31 Improvement Project (I-465 to SR 38), Hamilton County, Indiana, Draft Environmental Impact Statement*, dated July 25, 2003.

The DEIS and all six "preferred alternatives" (i.e., F1, F2, F3, F4, F5 and F6) receive an EC-2 rating (environmental concerns - additional information needed). This means the EPA has identified environmental impacts that should be avoided in order to fully protect the environment. Additional information regarding mitigation commitments for avoiding, minimizing and compensating for impacts to water resources, floodplains, forests and WPZs should be included in the FEIS. A summary of EPA's rating definitions is enclosed.

EPA would like to work with the Federal Highway Administration (FHWA) and the Indiana Department of Transportation (INDOT) to reduce these impacts. Please contact us if you have any questions regarding EPA's comments or would like to discuss how our concerns can be best addressed. Our staff contact is Virginia Laszewski at (312) 886-7501.

Sincerely,



Kenneth A. Westlake, Chief  
Environmental Planning and Evaluation Branch  
Office of Strategic Environmental Analysis

Enclosures (2): Summary of Rating Definitions  
EPA Comments on the DEIS

cc: Doug Shelton, Regulatory Branch, U.S. Army Corps of Engineers - Louisville District  
Scott Pruitt, Field Supervisor, U.S. Fish and Wildlife Service - Bloomington Field Office  
Lori Kaplan, Commissioner, Indiana Department of Environmental Management  
John Goss, Director, Indiana Department of Natural Resources



## **SUMMARY OF RATING DEFINITIONS AND FOLLOWUP ACTIONS\***

### **ENVIRONMENTAL IMPACT OF THE ACTION**

#### **LO—Lack of Objections**

The EPA review has not identified any potential environmental impacts requiring substantive changes to the proposal. The review may have disclosed opportunities for application of mitigation measures that could be accomplished with no more than minor changes to the proposal.

#### **EC—Environmental Concerns**

The EPA review has identified environmental impacts that should be avoided in order to fully protect the environment. Corrective measures may require changes to the preferred alternative or application of mitigation measures that can reduce the environmental impact. EPA would like to work with the lead agency to reduce these impacts.

#### **EO—Environmental Objections**

The EPA review has identified significant environmental impacts that must be avoided in order to provide adequate protection for the environment. Corrective measures may require substantial changes to the preferred alternative or consideration of some other project alternative (including the no action alternative or a new alternative). EPA intends to work with the lead agency to reduce these impacts.

#### **EU—Environmentally Unsatisfactory**

The EPA review has identified adverse environmental impacts that are of sufficient magnitude that they are unsatisfactory from the standpoint of public health or welfare or environmental quality. EPA intends to work with the lead agency to reduce these impacts. If the potential unsatisfactory impacts are not corrected at the final EIS stage, this proposal will be recommended for referral to the CEQ.

### **ADEQUACY OF THE IMPACT STATEMENT**

#### **Category 1—Adequate**

EPA believes the draft EIS adequately sets forth the environmental impact(s) of the preferred alternative and those of the alternatives reasonably available to the project or action. No further analysis or data collection is necessary, but the reviewer may suggest the addition of clarifying language or information.

#### **Category 2—Insufficient Information**

The draft EIS does not contain sufficient information for EPA to fully assess environmental impacts that should be avoided in order to fully protect the environment, or the EPA reviewer has identified new reasonably available alternatives that are within the spectrum of alternatives analyzed in the draft EIS, which could reduce the environmental impacts of the action. The identified additional information, data, analyses, or discussion should be included in the final EIS.

#### **Category 3—Inadequate**

EPA does not believe that the draft EIS adequately assesses potentially significant environmental impacts of the action, or the EPA reviewer has identified new, reasonably available alternatives that are outside of the spectrum of alternatives analyzed in the draft EIS, which should be analyzed in order to reduce the potentially significant environmental impacts. EPA believes that the identified additional information, data, analyses, or discussions are of such a magnitude that they should have full public review at a draft stage. EPA does not believe that the draft EIS is adequate for the purposes of the NEPA and/or Section 309 review, and thus should be formally revised and made available for public comment in a supplemental or revised draft EIS. On the basis of the potential significant impacts involved, this proposal could be a candidate for referral to the CEQ.

*\*From EPA Manual 1640 Policy and Procedures for the Review of Federal Actions Impacting the Environment.*



**EPA Region 5 Comments on the  
US 31 Improvement Project (I-465 to SR 38), Hamilton County, Indiana  
Draft Environmental Impact Statement  
CEQ No. 030275**

July 25, 2003

**PURPOSE and NEED/ALTERNATIVES**

Based on the information provided in the DEIS, the purpose and need for the project is to reduce existing and expected year 2025 traffic congestion and improve safety along the approximately 13 mile US 31 corridor between I-465 and State Road 38 (SR 38). Alternatives, including the No-Action alternative, TSM, TDM, Mass Transit, a combination of TSM/TDM/Mass Transit and roadway build alternatives on either existing and/or new alignments, are identified and evaluated using a phased approach. The No-Action Alternative and 12 build alternatives (i.e., Alternatives F1 through F6 and G1 through G6) underwent detailed analysis.

**Additional Information:** The Metropolitan Planning Organization (MPO) is currently conducting a Rail Transit Study (Study) for the entire Indianapolis MPO area. We understand that the Study will identify the locations and prioritize the order of development for rapid rail transit and/or bus service. Given the high existing and projected population and employment growth rates for Hamilton County and the US 31 corridor, we recommend that the FEIS identify whether the Preferred Alternative chosen would preclude or accommodate the future use of mass transit, both bus and light rail transit, along the US 31 corridor.

**"PREFERRED ALTERNATIVES"**

The DEIS identifies the F Alternatives (i.e., F1, F2, F3, F4, F5 and F6) as the "preferred alternatives." All F "preferred alternatives" consist of upgrading existing US 31 for 13.1 miles to a 6-lane, full access control, freeway with a 55-foot median and 10 interchanges. The difference between the F alternatives is limited to choosing between an interchange location at either 126<sup>th</sup> Street (F1, F2, F3) or 131<sup>st</sup> Street (F4, F5, F6) and choosing between the design of the interchange [i.e., Diamond (F1 and F4), Lateral Access (F2 and F5), or Folded Diamond (F3 and F6)] at 146<sup>th</sup> Street

Based on the information provided in the DEIS, EPA concurs that the F alternatives are preferable to the G alternatives. The F alternatives would have fewer impacts to natural resources, including wetlands, forests, streams, 100-year floodplains and agricultural land than the G alternatives. Of the "preferred alternatives," Alternatives F4 and F1 have the least amount of direct impacts to wetlands (0.92 acres), 100-year floodplain (35.0 acres), archeological sites (7), and prime farmland soils (95 acres). We note that Alternative F4 has the least amount of direct impact to forest land (31.8 acres).

## **ENVIRONMENTAL IMPACTS and MITIGATION**

### **1. Public Water Supplies / Wellhead Protection Zones**

All F “preferred alternatives” would extend into four Wellhead Protection Zones (WPZs) associated with public drinking water supply wells. The G alternatives would extend into one WPZ. The WPZs are near or within the existing US 31 right-of-way (ROW). With or without an upgrade of the existing US 31, there needs to be a good emergency response capability for spills. It is not clear what specific measures are in place for spill response to protect the wells from contamination.

**Additional Information:** Details of the emergency response plan and a discussion of its adequacy should be included in the FEIS.

EPA encourages the sponsors of the project to contact representatives of the Groundwater Section of the Indiana Department of Environmental Management (IDEM), include them in the planning process, and keep them informed of the project’s progress.

**Mitigation:** In order to insure the protection of public drinking water supplies, we strongly recommend that the proposed roadway be designed so that stormwater runoff and potential spills are diverted, treated and released outside WPZs. We recommend this mitigation measure be committed to in the FEIS.

### **2. Forest Impacts**

We are concerned about the loss of forest land associated with this project. Forests provide a number of valuable functions, including but not limited to providing food and cover for wildlife. Forests associated with streams help to maintain stream water quality by acting as vegetative buffers in the watershed and provide travel corridors for wildlife. We are concerned with the loss of upland forests, particularly those forests associated with streams. We are particularly concerned with the direct, indirect and cumulative loss of forest associated with Cool Creek.

The Indirect and Cumulative impacts assessment in the DEIS identifies that Hamilton County lost 27% of its net forested acres between 1974 and 1987 due to residential and commercial development. From 1987 to 1997, an additional 7% net loss occurred. With the projected loss of forest land associated with any of the “preferred alternatives,” implementation of the project will contribute to the cumulative loss of forest wildlife habitat and reduce the function they play in protecting surface water quality in the project area. No mitigation is offered in the DEIS for forest loss.

The DEIS estimates that the F “preferred alternatives” would directly impact between 31.8 acres (F4) and 39.1 acres (F3) of forest. The remaining F1, F2, F5 and F6 “preferred alternatives” would impact 32.4, 35.3, 34.7 and 38.7 acres, respectively. The G alternatives would directly impact 84.0 to 91.4 acres of forest. Alternative F4 is superior to the other DEIS alternatives for avoiding impacts to forest land and wildlife habitat.



**Additional Information:** The DEIS does not identify whether local communities in the study area have ordinances, zoning regulations or some other means to protect forest habitat. This information should be included in the FEIS and considered prior to choosing the Preferred Alternative.

**Mitigation:** We concur with the US Fish and Wildlife Service (USFWS) recommendation in their letter dated 2/2/01, that mitigation of upland forest loss within the Cool Creek floodplain should be addressed by reforestation within the same floodplain.

We also recommend that additional mitigation for unavoidable forest loss be undertaken. This might occur by planting replacement trees in areas that are associated with upland buffers at wetland mitigation sites. Mitigation might also include assisting county, state, or federal agencies with any on-going or planned forest reclamation projects in the watersheds affected.

**Additional Information:** We recommend that the proponents commit to voluntary forest mitigation in the FEIS and provide, as detailed as possible, a conceptual forest mitigation plan that compensates for the lost forest habitat due to the Preferred Alternative chosen. We strongly recommend that the FEIS commit to mitigation of upland forest loss within the Cool Creek floodplain by reforestation within the same floodplain.

### **3. Wetlands and Streams**

Wetlands were field delineated for the F and G alternatives. Steps have been taken with the G alternatives to shift the G corridor away from wetland areas, where the G corridor diverts from the existing US 31 right-of-way (ROW).

The DEIS identifies potential direct wetland impact acreage for emergent, scrub/shrub and forested wetlands for each of the F and G alternatives. However, the DEIS does not identify whether "farmed" wetlands would be impacted. The F alternatives have an estimated impact of filling between 0.92 to 3.32 acres of wetlands. The G alternatives have an estimated impact of filling between 7.42 to 9.82 acres, including 5.13 to 7.53 acres of forested wetland. We note that the F1 and F4 "preferred alternatives" have the least amount of direct wetland impact (0.92 acres), including impacts to forested wetlands (0.27 acres), of the "preferred alternatives."

The potential adverse impacts to water resources from this project must be considered in context of massive historic loss or degradation of water resources in Indiana, including a loss of about 87 percent of its historic wetlands coverage and the loss of their functions and values. In addition, the historic channelization of substantial portions of streams in Indiana, including streams in Hamilton County, has resulted in loss of natural stream channel geomorphology and riffle-pool systems, with a loss of functions and values.

**Mitigation:** The DEIS identifies appropriate mitigation ratios for the loss of the wetland types identified. This includes a 4:1 replacement ratio for forested wetlands. DEIS Figure 6.5.1 identifies the location of potential mitigation sites near the study area. However, the DEIS does



not provide descriptions of the sites or disclose how they were chosen. Given the rapid development in the study area, are these sites available for wetland mitigation?

**Additional Information:** The FEIS should contain a detailed wetland mitigation plan for the Preferred Alternative identified, if feasible. At a minimum, the FEIS should provide additional information regarding wetland mitigation. The information should include, but not be limited to: (1) the identification and description of available mitigation sites, (2) the method used to identify potential mitigation sites, and (3) the availability of each site. In addition, The FEIS should disclose any direct impacts to “farmed” wetlands that are subject to a U.S. Army Corps of Engineers Clean Water Act (CWA) Section 404 permit for this project. Appropriate mitigation for the loss of “farmed” wetlands, if applicable, should be identified in the FEIS.

#### **4. Floodplains and Streams**

Flooding is a natural process. It is highly desirable to have room for floodwater movement and storage, through the retention of floodplains and of wetlands in the watershed. Floodplains may also function as wildlife corridors. The F “preferred alternatives” have less impact (35.0 to 35.7 acres) to 100-year floodplains than the G alternatives (45.5 to 46.2 acres). The F1 and F4 “preferred alternatives” present a substantial environmental savings over the G alternatives and have less impact than the remaining F “preferred alternatives.”

**Mitigation:** We encourage, where feasible, bridging of unavoidable wetlands, streams and floodplain areas to minimize fill and allow for movement of flood waters and wildlife. We would particularly like to see the bridging of Cool Creek and its associated wetlands and floodplains by the proposed 146<sup>th</sup> Street Interchange. Where streams are currently culverted under US 31, we recommend FHWA/INDOT, in conjunction with USFWS, Indiana DNR and IDEM, identify those stream systems that would best benefit by bridging instead of culverting to allow for restoration of the stream channel and their associated historic wetlands and floodplains.

**Additional Information:** The FEIS should identify the streams and their associated wetlands and floodplains that will be bridged.

#### **5. Agricultural Land/Prime Farmland Soils Impacts**

The DEIS identifies that the land use category in the Study Area that will have the largest acreage loss due to project implementation is agricultural land. For each of the F “preferred alternatives,” direct agricultural loss is projected around 102 acres, with the loss of 95 to 98 acres of prime farmland soils. For the G Alternatives, 276 acres of agricultural land would be lost, with 277 to 280 acres of prime farmland soils. Of the “preferred alternatives” F4 and F1 would have the least amount of impact to prime farmland soils, 95 acres.

**Mitigation:** We recommend that FHWA and INDOT coordinate with the appropriate state and federal agencies, and landowners. Mitigation measures, if feasible, should be identified, and committed to, in the FEIS.



## **6. Noise Impacts**

The DEIS identifies that, under existing conditions, the noise abatement criterion is already exceeded at 51 of the 232 receptors analyzed. The No-Action Alternative would approach or exceed the noise abatement criteria at 71 receptors. The F “preferred alternatives” and G alternatives would approach or exceed the noise abatement criteria at 76 and 55 receptors, respectively. The projected noise levels at the receptors analyzed range between 52 decibels (dBA) to 74 dBA. For the F “preferred alternatives,” projected noise level increases compared to existing noise levels are less than 6 dBA.

The DEIS analysis for the identification of potential use of noise mitigation measures follows INDOT’s *Highway Traffic Noise Policy* and focused on the use of noise walls/barriers. We note that the results of the analysis of using noise walls for noise abatement was found to be “not feasible.” The DEIS identifies that the only other noise abatement measures considered were altering vertical or horizontal alignment, eliminating truck traffic, and reducing speed limits. The DEIS reports that these measures were also found to be not “feasible” and/or “reasonable.”

**Mitigation:** No mitigation for noise impacts is offered in the DEIS. However, the DEIS does state that noise barriers will be analyzed again in the final design phase of this project. Are there other noise abatement measures, used either alone or in combination, that could be used? One such measure might be the use of innovative pavements. We understand that such measures have been shown to reduce traffic noise levels by 7-14 dBA.

**Additional Information:** We recommend that the FEIS identify and assess whether other noise abatement measures, either alone or in combination, are feasible and reasonable for this project.

## **7. Endangered Species**

EPA principally defers to the USFWS and IDNR regarding endangered species assessments. We note that the USFWS concluded that the proposed project is not likely to adversely effect any federally listed species in their April 30, 2003, letter (Appendix C). We encourage FHWA and INDOT to continue coordination with the USFWS and IDNR as appropriate. This coordination should be documented in the FEIS, if applicable.

## **8. Cultural Resources/Historic Preservation**

EPA recognizes that there may be potential adverse effects to cultural resources from any of the Build Alternatives. We are aware of the ongoing National Historic Preservation Act Section 106 consultation with the State Historic Preservation Officer (SHPO). Therefore, EPA defers to the parties involved in the Section 106 consultation to consider and to address those potential adverse effects associated with the proposed project.

**Additional Information:** We recommend that FHWA include, if applicable, concurrence from the SHPO regarding the results of the Section 106 consultation process in the FEIS. This will insure that any adverse effects to cultural/historic resources, and possible mitigation measures for adverse effects, are identified, and taken into consideration when selecting the Preferred Alternative that will be identified in the FEIS.



## 9. Air Quality

The 8-hour ozone standard and the PM 2.5 standard have been upheld by the courts. EPA plans to designate areas for the 8-hour ozone standard in April 2004. Although EPA has not designated areas under the new standards at this time, some air monitoring data is available to determine if counties are showing attainment or non-attainment.

**Additional Information:** If the US 31 FEIS is not completed by April 2004, the FEIS should list and evaluate the available air monitoring data for the affected counties. Additional reductions in precursor emissions will be required if and when these counties are designated under the new standards.